



SHABBONA LAKE

FISHERIES STATUS SUMMARY

LOCATION – Shabbona Lake is in Dekalb County approximately 2 miles south and 1 mile east of the city of Shabbona.

DESCRIPTION –Shabbona Lake was constructed in 1974 for recreational fishing. Shabbona Lake has 318 surface acres of water. The lake has an average depth of 17.5 feet deep and a max depth of 40 feet. The original river channel can still be found along with old roadbeds and standing timber creating a unique fishing experience. A two-lane concrete boat ramp with car/trailer parking is available. Boat rentals are available from the bait shop.

MANAGEMENT ACTIVITIES - The fishery is managed by annual species-specific surveys. Habitat structures or brush piles are completed annually when weather and conditions allow.

STATUS OF THE SPORT FISHERY – Shabbona Lake receives an annual stocking of Channel catfish and Walleye. Muskie will be stocked every third year starting in 2018. Hybrid striped bass are stocked when available. Largemouth and Smallmouth bass are stocked when available or when a poor year class has been identified. Below is a description of the fishery.

Muskie:

The Muskie population was sampled with 10 4X6 large mesh trap net on 4/12/2022. The Muskie population continues to be stable with size distribution like previous years even with decreased overall catch per unit effort (CPUE) in 2022. The decreased CPUE is do to decreased catches in fish in the 30-38.2 inch range. Stocking was adjusted in 2018 to every third year due to decreased Relative weights (Wr’s) for both male and female fish. Since 2018 both males and females are seeing rebounding average Wr’s. 2022 was the first time since 2018 that no stock size (20-29.9 inch) fish were sampled.

<u>1.Management Plan:</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018*</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Net nights: (# nets)	1(6)	1(6)	1(10)	1(10)	1(10)	1(10)	ns	1(10)	1(10)
CPUE (fish/nn)(n)	7.5(45)	8.7(52)	5.3(53)	7.9(79)	7.9(79)	6.3(63)	3.5(35)	2.0(20)	
CPUE 20.1-29.9 0.8	1.2	0.2	1.2	0.1	0.2		1.1	0.0	
CPUE 30.0-38.2 5.3	5.8	4.3	4.6	6.1	4.3		1.7	1.5	
CPUE 38.2-42.1	0.6	1.2	0.8	1.5	1.0	1.1		0.5	0.2
CPUE 42.1-50.0	0.2	0.5	0.1	0.5	0.6	0.9		0.2	0.2
CPUE 50+	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
RSD 42	4	6	2	8	8	14	6	11	
RSD 48	0	0	0	0	0	0	0	0	
Avg. Size mm	861	880	903	890	905	935		866	881

*stocking change

<u>Avg Wr by sex :</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
20.1-29.9								ns	
Avg Wr Female		107						116	
Avg Wr Male		89	94	108	95	112	101	91	
30-38.0									
Avg Wr Female		97	126	97	93	103	105	104	108
Avg Wr Male		101	97	91	92	93	98	94	99

2. Fall diurnal DC electrofishing CPUE (fish/hr.) of each length group of Largemouth bass collected at Shabbona Lake

<u>Year</u>	<u><7.9</u>	<u>7.9-11.8</u>	<u>11.8-15</u>	<u>15-20.1</u>	<u>> 20</u>	<u>Total</u>
2016	53.0	6.5	15.0	11.0	0.0	85.0
2017	101.5	18.0	15.0	37.0	1.0	172.5
Avg Wr	(111)	(104)	(102)	(105)	(96)	
2018	114.0	10.5	13.5	18.5	0.0	156.5
Avg Wr	(103)	(93)	(98)	(98)		
2019	156.5	8.0	15.5	15.5	0.5	196.0
Avg Wr	(100)	(98)	(100)	(96)	(121)	
2020	111.0	11.5	8.5	8.0	0.0	139.0
Avg Wr	(111)	(104)	(104)	(95)		
2021	121.0	9.0	12.5	8.0	0.5	151.0
Avg Wr	(121)	(122)	(96)	(94)	(93)	
2022	23.0	3.5	7.0	8.0	0.5	42.0
Avg Wr	(125)	(116)	(104)	(99)	(108)	

3. Management Plan Spring : Goal:

Spring CPUE 12-14.9 in > 5year avg.
 Spring CPUE ≥ 15.0 in > 5year avg.
 Spring CPUE ≥ 20.0 in > 5year avg.
 Years to 14 inches 4.5 years

Smallmouth Bass:

The Smallmouth bass population was sampled on 10/5-6/2022 a total of 120 minutes as part of the fall community sample. The Smallmouth bass population continues to be low density population. Habitat and competition with Largemouth bass will be the limiting factors for this population. Lower lake sample sites have the highest numbers of Smallmouth bass sampled.

<u>Management Plan Fall: Goal:</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
# Stock (180mm)	>100	13	9	4	1	19	5
PSD		39	33	100	0	94	80
RSD 14		8	11	50	0	5	23
RSD 15		0	11	25	0	5	23
RSD 18		0	0	0	0	0	0

<u>Year</u>	<u><7.1</u>	<u>7.1-11</u>	<u>11.1-13.8</u>	<u>13.8-16.9</u>	<u>>16.9</u>	<u>Total</u>
2022	1.0	0.5	0.5	1.5	0.0	3.5
Avg Wr		(99)	(99)	(99)		

Walleye:

The Walleye population was sampled on 4/12/2021 by nocturnal DC electrofishing for 1 run (30 min). The 2021 sample was a total of 114 individuals, manly males, which is to be expected when sampling the dam face during the spawn. Numbers of harvestable size Walleye continue to be stable with 25 percent of the population sampled that is greater than 10 inches greater than harvestable size.

<u>1. Management Plan Spring:</u>	<u>2017</u>	<u>2019</u>	<u>2021</u>
# Stock(250mm)	125	99	105
PSD	90	68	82
RSD 18	37	29	25

Years to 18 inches n/a n/a n/a

2.Spring nocturnal DC electrofishing CPUE (fish/hr) of each length group of Walleye collected at Shabbona Lake

<u>Year</u>	<u><9.8</u>	<u>9.8-15</u>	<u>15-20.1</u>	<u>20.1-24.8</u>	<u>> 24.8</u>	<u>Total</u>
2017	0.0	24.0	198.0	26.0	0.0	248.0
2019	2.0	64.0	110.0	20.0	4.0	200.0
2021	18.0	38.0	144.0	28.0	0.0	228.0

Crappie:

The Crappie population was sampled for the first time in the fall with 1 inch bar 3x6 trap nets. A total of 10 nets per day for a grand total of 30 net nights were completed. Otoliths were removed from 5-10 fish per species per cm group for age determination. A total of 156 crappie and 2 hybrids were sampled by trap nets. Black Crappie were the dominate species with 96 sampled. Both species have good relative weights for all size groups sampled. Both species have excellent growth reaching over 9 inches in 2 plus years. It seems that White Crappie could be specifically harvested over Black Crappie; they have a max age of 4 in the sample. Black crappie sampled have a max age of 8.

Black crappie:

<u>Management Plan</u>	<u>:Goal</u>	<u>2020</u>
# Stock (130mm)	>100	96
PSD	40-60	97
RSD 10	5-10	70
Mean length Age 2+		9.6" (243.38mm)
CPUE ≥ 8.0 inches		3.1
CPUE age-1(fish/nn)		0.2
Net nights: (# nets)		3(30)
CPUE (fish/nn) (n)		3.2(96)

2.Fall trap netting CPUE (fish/nn) of each length group of Black crappie collected at Shabbona Lake

<u>Year</u>	<u><5</u>	<u>5.1-8</u>	<u>8.1-10</u>	<u>10.1-12</u>	<u>12.1-15</u>	<u>>15</u>	<u>Total</u>
2020	0.0	0.1	1.1	1.7	0.3	0.0	3.2
Avg Wr		(99)	(105)	(99)	(96)		

3. Age length key of Black crappie collected from Shabbona Lake 10/27-29/2020

<u>Length (mm)</u>	<u>Age - 1</u>	<u>Age - 2</u>	<u>Age - 3</u>	<u>Age - 4</u>	<u>Age - 5</u>	<u>Age - 6</u>	<u>Age - 7</u>	<u>Age - 8</u>	<u>Total</u>
160	1								1
170	1								1
180									0
190	1								1
200	1								1
210	1	1							2
220		3							3
230		5							5
240		15							15
250		8						2	10
260		3	7			1			11

270			4	2	6		3		15
280			2		2	8			12
290					3	5	5		13
300					1	3	1		5
310									0
320					1				1
Total	5	35	13	2	13	17	9	2	96

White crappie:

Management Plan	:Goal	2020
# Stock (130mm)	>100	62
PSD	40-60	77
RSD 10	5-10	37
Mean length Age 2+		9.4" (238.67mm)
CPUE \geq 8.0 inches		1.6
CPUE age-1(fish/nn)		0.8
Net nights: (# nets)		3(30)
CPUE (fish/nn) (n)		2.0(63)

2. Fall trap netting CPUE (fish/nn) of each length group of White crappie collected at Shabbona Lake

Year	<5	5.1-8	8.1-10	10.1-12	12.1-15	Total
2019	0.0	0.4	0.8	0.8	0.0	2.0
Avg Wr		(97)	(100)	(95)		

3. Age length key of White crappie collected from Shabbona Lake 10/27-29/2020

Length (mm)	Age - 1	Age - 2	Age - 3	Age - 4	Total
160	1				1
170	1	1			2
180	4				4
190	7				7
200	6				6
210	6				6
220	2				2
230	2	1	1		4
240		4	3		7
250		7	2	2	11
260			6	2	8
270			2	1	3
280					0
290				1	1
Total	29	13	14	6	62

Bluegill:

The Bluegill population was sampled using DC electrofishing for 120 minutes as part of the fall community sample. A total of 131 Bluegill were sampled. The 2022 sample showed a decrease in catch per unit of

effort (CPUE) for all size groups from samples before 2020 but was very similar to the 2021 survey. Data suggest that Bluegill have a strong year class every other year with 2022 being a low year for recruitment.

Management Plan:	Goal:	2016	2017	2018	2019	2020	2021	2022
#Stock(80mm)	>100	105	160	298	176	236	21	79
PSD(95% CI)	20-60	40	33	12	26	21	33(20)	4(4)
RSD 7	5-20	6	6	1	4	5	14	4
RSD 8	5-10	0	0	0	0	0	0	0
Effort		120	120	120	120	120	120	120

2. Fall diurnal DC electrofishing CPUE (fish/hr) of each length group of Bluegill collected at Shabbona Lake

Year	<3	3.1-6	6.1-8	8.1-10	Total
2016	27.1	10.3	6.7	0.0	44.1
2017	21.5	54.0	26.0	0.0	101.5
Avg Wr		(115)	(101)		
2018	133.0	130.0	18.5	0.0	281.5
Avg Wr		(104)	(89)		
2019	80.0	62.0	23.0	0.0	165.0
Avg Wr		(96)	(90)		
2020	143.0	63.5	24.5	0.0	231.0
Avg Wr		(97)	(94)		
2021	57.5	7.0	3.5	0.0	68.0
Avg Wr		(108)	(100)		
2022	26.0	38.0	1.0	0.5	65.5
Avg Wr		(106)	(91)	(94)	

Gizzard Shad:

Gizzard shad are the primary food for all the predators in Shabbona Lake. Small Gizzard shad are preferred for Walleye, Hybrids, intermediate Largemouth bass and larger Crappie species. Larger Gizzard shad are preferred for Muskie and larger Largemouth bass.

	2017	2018	2019	2020	2021	2022
CPUE (fish/hr) < 6inches	316.5	76.0	395.0	1834.0	531.0	6.0
CPUE (fish/hr)	481.5	127.5	436.0	1886.0	556.0	72.0

ADDITIONAL FISH SPECIES – Shabbona Lake supports a variety of fish species which include sunfish (bluegill and green sunfish), common carp, yellow perch and others. Shabbona Lake is supported by a gizzard shad forage base as well as various other minnow and sucker species.

FISHING REGULATIONS – Statewide fishing regulations apply at this lake (see current Illinois Fishing Information booklet and IFISHILLINOIS website <http://www.ifishillinois.org/> for specific details).

Additional Site Specific fishing regulations:

- All Fish 2 Pole and Line Fishing Only
- Large or Smallmouth Bass 1 Fish Daily Creel Limit (14" Minimum Length Limit)
- Bluegill or Redear Sunfish 10 Fish Daily Creel Limit (No Minimum Length Limit)
- Channel Catfish 6 Fish Daily Creel Limit (No Minimum Length Limit)
- Pure Muskellunge 1 Fish Daily creel Limit (48" Minimum Length Limit)
- Striped, White, or Hybrid Striped Bass 3 Fish Daily Creel Limit (17" Minimum Length Limit)
- Walleye, Sauger, or Hybrid Walleye. 6 Fish Daily Creel Limit (18" Minimum Length Limit)

White, Black, or Hybrid Crappie 10 Fish Daily Creel Limit (No Minimum Length Limit)

Boat motor: Unlimited HP, No wake

CONTACT INFORMATION – Shabbona Lake State Park: 815-824-2106
IDNR Fisheries County Biologist: 630-360-4185

Shabbona Lake Map

